

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003065**Date Inspected:** 04-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

<b>CWI Name:</b>	Wu Ming Kai / Zhao Chen Sun			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	Tower / OBG		

**Summary of Items Observed:****Bay 3**

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observation of Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspector's observation in bay 3 it was noted that ZPMC was in process for fit-up at multiple stages on side and bottom plates. ZPMC Certified Welding Inspector Wu Ming Kai was present at the time of observation and this QA inspector spoke with Mr. Kai on the work in process for bay 3. It was stated that tack welds for WT and straight stiffener plates were in process for component numbers EP037-001 and EP051-001 under WPS-B-P-2112-FCM using Shielded Metal Arc Welding (SMAW) welders observed for these location were Yang Gen Cheng and Wang Zhong Feng. The ZPMC CWI watching this operation was Wu Zhi Feng. ZPMC personnel were also placing lay out marks for side and bottom plates at multiple locations for the fit up process. At gantry 1 it was observed that ZPMC was welding EP055-001 and EP041-001 under WPS-B-T-2132-3 for 8mm multi pass fillet welds.

**Bay 4**

During the continued observation by this QA inspector it was noted in bay 4 that ZPMC was welding in the vertical position for interior ring flanges for diaphragm plates. Component number that was observed being welded was SSD1-SA335-2A under WPS-B-T-2233-B-U3-F by welder Li Zhao Qian. Also observed welding on diaphragm plate NSD1-SA261- 1&2A under WPS-B-T-3221-B-U3c-s-1 with welding operator Jiang Jingteng. CWI Ye Yong Jun was present within this bay monitoring welding progression and parameters for the Submerged Arc Welding (SAW) process for diaphragm plate splices and FCAW process for the internal flange rings.

**Bay 7**

This QA inspector observed ZPMC in bay 7 performing in process weld repairs on 5 floor beams components due to inadequate weld profile discovered by ZPMC QC personnel. The weld profiles included unequal weld lengths,

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in proper throat size due to grinding and under fill. This information was relayed to this QA inspector by ZPMC's CWI Huang Wen-Pang. The following is a list of the floor beams repaired, FB003-028, FB003-051, FB003-035, FB003-036 and FB003-058 these areas were in process. It was noted that ZPMC's CWI Huang Wen-Pang was present during the welding operations in this bay and monitoring welding parameters and in process progression.



### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Riley, Ken	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon, Albert	QA Reviewer

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